



## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 64

[CG Docket Nos. 03-123, 13-24, 22-408; FCC 22-97; FR ID 123862]

#### Proposal for New TRS Fund Support for Internet Protocol Captioned Telephone Service

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Federal Communications Commission (FCC or Commission) proposes to adopt a new three-year plan for Telecommunications Relay Services (TRS) Fund support of Internet Protocol Captioned Telephone Service (IP CTS). Based on recent data that allows more reliable assessment of the costs of fully automatic IP CTS, the Commission proposes to apply different formulas for compensating TRS providers for the provision of Communications Assistant (CA)-assisted and automatic speech recognition (ASR)-only IP CTS. The Commission proposes to continue using an average-cost methodology, subject to revised criteria for determining reasonable costs and to annual adjustments based on relevant cost factors.

**DATES:** Comments are due [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Reply comments are due [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may submit comments, identified by CG Docket Nos. 03-123, 13-24, and 22-408, by either of the following methods:

- *Federal Communications Commission's website:* <https://www.fcc.gov/ecfs/filings>. Follow the instructions for submitting comments.
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

For detailed instructions for submitting comments and additional information on the rulemaking process, *see* document FCC 22-97 at <https://docs.fcc.gov/public/attachments/FCC-22-97A1.pdf>.

**FOR FURTHER INFORMATION CONTACT:** Michael Scott, Disability Rights Office, Consumer and Governmental Affairs Bureau, at (202) 418-1264, or [Michael.Scott@fcc.gov](mailto:Michael.Scott@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission’s Notice of Proposed Rulemaking, document FCC 22-97, adopted on December 21, 2022, released on December 22, 2022, in CG Docket Nos. 03-123, 13-24, and 22-408. The full text of document FCC 22-97 is available for public inspection and copying via the Commission’s Electronic Comment Filing System (ECFS).

To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer and Governmental Affairs Bureau at (202) 418-0530.

*Ex Parte Rules.* This proceeding shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules. 47 CFR 1.1200 *et seq.* Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with § 1.1206(b) of the Commission’s rules. In proceedings governed by § 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their

native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

## **SYNOPSIS**

### **Background**

1. Section 225 of the Communications Act of 1934, as amended (the Act), 47 U.S.C. 225, requires the Commission to ensure that TRS are available to persons who are deaf, hard of hearing, or deafblind or have speech disabilities, “to the extent possible and in the most efficient manner.” TRS are defined as “telephone transmission services” enabling such persons to communicate by wire or radio “in a manner that is functionally equivalent to the ability of a hearing individual who does not have a speech disability to communicate using voice communication services.”

2. IP CTS, a form of TRS, permits an individual who can speak but who has difficulty hearing over the telephone to use a telephone and an [IP]-enabled device via the Internet to simultaneously listen to the other party and read captions of what the other party is saying. IP CTS is supported entirely by the TRS Fund, which is composed of mandatory contributions collected from telecommunications carriers and voice over Internet Protocol (VoIP) service providers based on a percentage of each company's annual revenue. IP CTS providers receive monthly payments from the TRS Fund to compensate them for the reasonable cost of providing the service, in accordance with a per-minute compensation formula approved by the Commission.

3. Before 2018, compensation for IP CTS providers was determined by proxy, by averaging the payments made by state TRS programs to providers of an analogous service, Captioned Telephone Service (CTS). In 2018, the Commission determined that this approach had resulted in providers receiving compensation greatly in excess of the average cost actually incurred to provide IP CTS. Instead, the Commission proposed that compensation be determined as a weighted average of the actual allowable costs reported by the providers. In 2020, the Commission adopted this average-cost methodology. From 2018 to 2021, the Commission progressively reduced the level of TRS Fund compensation to close the gap between compensation and average provider cost. As a result of these decisions, the compensation formula for IP CTS was reduced from \$1.9467 per minute in Fund Year 2017-18 to \$1.30 per minute in Fund Year 2021-22.

4. In 2018, the Commission authorized, for the first time, the provision of IP CTS on a fully automatic basis, using *only* automatic speech recognition (ASR) technology to generate captions, without the participation of a communications assistant. The Commission also sought comment on whether and how to establish a separate compensation formula for the provision of fully automatic IP CTS. In 2020, while noting that the ASR-only mode allowed substantial reductions in the cost of providing IP CTS, the Commission deferred the issue of establishing a specific compensation formula for ASR-only captioning. With only two companies (both new entrants) then authorized to provide fully automatic IP CTS, the Commission reasoned that sufficient information was not yet available on the specific cost of that service mode. The Commission also suggested that, even after sufficient cost data became available, application of a single compensation formula might still be warranted. Noting that the two service modes are essentially different technological means for delivering a single service, the Commission pointed out that a single compensation formula may be warranted to encourage IP CTS providers to use the most cost-effective technology for providing this service.

### **Proposed Rules**

5. *Compensation for ASR-only IP CTS.* The Commission revisits the question of whether to establish different formulas for CA-assisted and ASR-only IP CTS, along with other related issues. Since 2020, the availability of cost data has improved. All currently certified IP CTS providers have been authorized to provide captioning in the ASR-only mode, either as an alternative to CA-assisted captioning or as the provider's sole captioning method, and additional applicants are currently seeking authorization to provide TRS Fund-supported IP CTS exclusively in the ASR-only mode. Total minutes of ASR-only IP CTS has substantially increased in the past two years. Historical cost and demand data for calendar year 2021, in which ASR-only usage increased to some 23% of monthly IP CTS minutes that year, was reported by providers in March 2022, along with projected cost and demand for 2022 and 2023. These reports appear to confirm that there are significant differences in the costs attributable to each service mode. The TRS Fund administrator reports that the weighted average of provider costs attributed to ASR-only IP CTS (expenses plus 10% operating margin) in 2021 was \$0.6977, \$0.30 less per minute than the average for CA-assisted IP CTS (\$0.9979). The Commission seeks comment on the extent to which

these estimates, based on provider-reported data, accurately reflect cost differences between ASR-only and CA-assisted IP CTS.

6. Further, notwithstanding the Commission's prior reservations, we believe there are special considerations warranting the application of different compensation formulas to the two service modes, at least as a temporary measure. On the one hand, there is evidence, including tests conducted by a federally funded research and development center, that ASR-only captioning offers better speed of answer (*i.e.*, it takes less time for captioning to commence after a call has begun), lower caption delay (the time lag between words being spoken on a phone call and the appearance of captions on the user's screen), and a level of accuracy that is generally comparable to (and in many instances, greater than) that of CA-assisted captioning. On the other hand, the record also indicates that for some portion of IP CTS calls, CA-assisted captioning can result in better service or is preferred by consumers. Further, some research indicates that ASR technology may show algorithmic bias in the accuracy with which it transcribes voices; a 2020 study of speech recognition systems from five major tech companies found that the systems misidentified words spoken by black individuals at a substantially higher rate than words spoken by white people. Given the apparently substantial cost differences, the continued application of a single compensation formula to both service modes could encourage IP CTS providers to use the lower-cost, more profitable ASR-only mode even for those calls where a user could benefit from having a CA involved. The Commission seeks comment on the foregoing analysis. Is it consistent with recent test results of the speed and accuracy of ASR-only and CA-assisted IP CTS?

7. In noting that the availability of CA assistance may improve the quality of service on some calls, the Commission does not mean to suggest that, if a provider chooses to provide IP CTS exclusively in one mode or the other, that provider would necessarily fail to provide functionally equivalent service. The Commission has granted certification to a number of applicants proposing to offer only fully automatic IP CTS, based in part on a showing that their average performance on testing of both caption delay and accuracy exceeded that of an average CA-assisted IP CTS provider.

8. In addition, the Commission notes that it has proposed to adopt measures and metrics that would allow more precise assessment of IP CTS service quality, including compliance with minimum TRS standards. The Commission recognizes the importance of this question, and work continues on

development of more precise measures and metrics for assessing how well each provider and captioning approach performs in meeting the objectives of section 225 of the Act. Among the potential benefits of such metrics is the ability to make more fine-grained policy determinations regarding TRS Fund compensation. Pending the development of such metrics, the Commission seeks to apply cost-based compensation formulas for CA-assisted and ASR-only IP CTS that allow providers (or consumers, when able to choose) to select an appropriate captioning method for each call based primarily on considerations of quality, not cost. The Commission seeks comment on this analysis.

9. As a further consideration, if the cost differences between ASR-only and CA-assisted IP CTS are as substantial as they appear, then—as long as a substantial portion of IP CTS minutes are provided with CA assistance—continued application of a single, average-cost-based compensation formula to both modes of service could confer above-average profits on those IP CTS providers that produce captions predominantly or exclusively in the ASR-only mode. While such above-average profits earned during a limited period of time may serve to incentivize and reward innovation, prolonged payment of excessive compensation may result in waste of TRS Fund resources—and could significantly increase the risk of fraud in the IP CTS program, if the availability of unusually high profits increases the attractiveness of the IP CTS program to unscrupulous actors. The Commission seeks comment on this analysis.

10. To address the concerns discussed above, the Commission proposes that during the next compensation period, different levels of per-minute compensation should be applicable to each service mode, with the compensation formula for each mode aligned with the reasonable cost attributable to that mode. By setting a level of per-minute compensation for the ASR-only service mode that tracks its actual cost, the Commission believes it can maintain an appropriate incentive for providers to use the ASR-only mode where warranted, while also continuing to support CA-assisted IP CTS where appropriate, *e.g.*, where CA-assisted IP CTS may be needed to achieve functional equivalence. Given its lower reported cost, the fact that all IP CTS providers have now begun using ASR-only IP CTS, and the likelihood of continuing improvements in ASR technology, the Commission believes IP CTS providers will continue to be motivated to offer this service mode when preferred by users or otherwise warranted.

11. The Commission seeks comment on this proposal and the above assumptions. If the Commission applies different compensation formulas to the ASR-only and CA-assisted service modes, should the

Commission also, within the CA-assisted category, establish a separate formula for CA-assisted IP CTS using the Communications Access Realtime Translation (CART) method to account for cost differences? Alternatively, should the Commission continue to determine a single level of compensation for IP CTS, based on the weighted average of providers' reasonable costs for the service as a whole? What are the costs and benefits of establishing separate compensation levels for IP CTS calls, compared to maintaining the current approach? Are there other factors the Commission should consider in setting compensation formulas for ASR-only and CA-assisted service?

12. If the Commission establishes separate formulas for CA-assisted and ASR-only service, then it must be clear—to both providers and the TRS Fund administrator—which formula applies to any particular call or portion of a call. The Commission therefore proposes to codify in its rules the requirement, currently imposed as a condition of granting certification for the provision of ASR-only in addition to CA-assisted captioning, that IP CTS providers identify in their monthly call detail reports those calls and minutes that are captioned as ASR-only and those captioned as CA-assisted. If the service mode changes in the middle of a call, the Commission proposes that portions of the call (*i.e.*, number of minutes, specified to one decimal place) that are ASR-only and CA-assisted, respectively, shall be correctly identified as such.

13. The Commission also proposes to amend its rules to make clear which compensation formula is applicable to calls for which a CA or other provider personnel is not involved in the initial generation of the captions, but is monitoring caption quality while a call is in progress and may also be correcting captions during a call. The Commission seeks comment on the extent to which such monitoring is currently practiced and how it is handled operationally. For example, where CAs are engaged in monitoring ASR-generated captions, do they also undertake to correct any mistakes themselves, or do they simply assess the caption quality to determine whether the call needs to be transferred to the CA-assisted service mode? Are there circumstances in which one CA may simultaneously monitor more than one ASR-captioned call? Are there other relevant scenarios the Commission should consider, involving both a CA and the use of ASR on a single call?

14. The Commission proposes that, if a CA is only assigned to monitor or correct one call at a time, the CA-assisted compensation formula shall apply to any call (or any call minutes, if a CA is not present

for the entire call) to which that CA is assigned. On the other hand, if a CA (or other employee) is monitoring more than one call, or is splitting time between monitoring a call and attending to other tasks, then—because the employee’s involvement appears to be more in the nature of general supervision of ASR-only operations—the Commission proposes that the ASR-only formula shall apply to each call being monitored. The Commission seeks comment on these proposals. Are there any other kinds of situations in which the proper classification of calls and minutes as ASR-only or CA-assisted needs clarification?

15. The Commission also seeks comment on how to determine with greater precision the reasonable cost of providing IP CTS on a fully automatic or CA-assisted basis. Are any additional categories or subcategories needed in the administrator’s cost reporting template to appropriately capture the costs of each service mode? Are any such changes necessary to capture costs that may be incurred in providing users the ability to choose a preferred service mode, or to switch between ASR-only and CA-assisted services during a call? Are there other steps the Commission could take, consistent with cost-causation principles, to ensure that the compensation formulas provide appropriate incentives for providers to offer such choices to consumers or otherwise to advance the statutory goal of functional equivalence?

16. Although the Commission required IP CTS providers offering both modes of service to specify the costs attributable to each mode, there is a lack of consistency in how various providers have responded to this directive. For certain cost categories, such as facilities, indirect costs, and marketing, some providers directly assigned the costs attributed to each service mode, while other providers allocated the same costs based on the share of minutes provided. In accordance with well-established principles of regulatory accounting, the Commission tentatively concludes that when it is possible to directly assign costs to either ASR-only or CA-assisted IP CTS, providers must do so, and when that is not possible, they must reasonably allocate such costs based on direct analysis of the origin of the costs themselves. The Commission has applied this principle in a variety of contexts where costs of regulated companies must be apportioned among multiple services. When direct analysis is not possible, common cost categories should be allocated based upon an indirect, cost-causative linkage to another cost category (or group of cost categories) for which a direct assignment or allocation is available. The Commission seeks comment on this tentative conclusion.



17. *Allowable Costs.* In the *2020 IP CTS Compensation Order*, the Commission decided that IP CTS costs could be reasonably determined using, for the most part, the same allowable-cost criteria applicable to other forms of Internet-based TRS. As the only exception, the Commission determined that the TRS Fund should support reasonable outreach costs of IP CTS providers. Except as specifically identified in this document, the Commission does not seek to revisit these determinations. Nonetheless, in order to ensure that the Commission sets rates for the foregoing periods at levels that promote the statutory goal of functional equivalence at a time when both technology and consumer use of communications services are rapidly evolving, the Commission seeks comment on whether adjustments to certain cost criteria are warranted for IP CTS.

18. *Research and development to enhance functional equivalency.* The Commission proposes to revise its allowable cost criteria to allow TRS Fund support for the reasonable cost of research and development to enhance the functional equivalency of IP CTS, including improvements in service quality that may exceed the Commission's TRS mandatory minimum standards. Currently, the TRS Fund supports research and development conducted by an IP CTS provider to ensure that its service meets the applicable TRS mandatory minimum standards, but does not compensate providers for developing IP CTS enhancements that exceed this criterion. In establishing this limitation, the Commission reasoned that the functionality that TRS providers must provide is defined by the applicable mandatory minimum standards, and that the TRS Fund was not intended to be a source of funding for the development of TRS services, features, and enhancements that, although perhaps desirable, are not necessary for the provision of functionally equivalent TRS service.

19. The Commission now proposes to revisit this criterion with respect to IP CTS costs. In this document, the Commission seeks comment on the allowability of research and development costs specifically with respect to IP CTS. In the pending VRS compensation proceeding, commenters have raised an analogous concern with respect to VRS. The Commission deferred consideration of the analogous issue with respect to IP Relay, pending its resolution for other forms of TRS.

20. While it is true that, to be eligible for TRS Fund support, a TRS provider is only required to meet the minimum standards, the rules do not *prohibit* providers from exceeding those standards. Further, section 225 of the Act states that the Commission's TRS regulations must not "discourage or impair the

development of improved technology.” In addition, the Commission’s policy is to encourage IP CTS providers to compete for subscribers on the basis of service quality, including by introducing innovative captioning processes and features.

21. Adjusting the Commission’s criteria to allow TRS Fund support for research and development into IP CTS improvements that meet *or* exceed the Commission’s minimum standards will increase the likelihood that, in fact, the service actually provided does meet or exceed those standards and harmonize the Commission’s IP CTS cost criteria with the Congressional intent to encourage the development of improved technology for TRS. The Commission seeks comment on this proposal and the cost and benefits of allowing providers to recover the reasonable cost of such research and development.

22. The Commission also invites comment on how it should ensure that the benefit of the conducted research and development actually enhances functional equivalency. The Commission believes that, by using an average cost methodology and setting compensation formulas for multi-year periods, the Commission provides substantial incentives for providers to use research and development funds wisely and avoid incurring unnecessary costs. However, the Commission seeks comment on whether additional safeguards are needed. Should providers be required to report on conducted research and development? If so, how often? What information should be included in such reports to allow the Commission or TRS Fund administrator to audit research and development costs? Further, in determining the reasonable costs for research and development, should the Commission account for the benefits that may inure to providers, for example, licensing or earning profits from research and development outside the TRS program?

23. *Numbering.* Pursuant to a prior Commission ruling, the costs associated with acquiring a telephone number and assigning it to a customer are not currently supported by the TRS Fund. The Commission reasoned that such costs are not attributable to the use of a relay service to facilitate a call, noting that analogous costs incurred by voice service providers are typically passed through to their customers. In the *2022 IP Relay Compensation Order*, however, the Commission revisited this issue with respect to IP Relay, concluding that, because the Commission’s rules require the assignment of North American Numbering Plan (NANP) numbers to IP Relay users, it seems illogical to treat such costs as if they are not attributable to the use of relay to facilitate a call. The Commission also reasoned that the

circumstances relevant to recovery of number acquisition costs by voice service providers and IP CTS providers are not equivalent. While voice service providers have a billing relationship with their consumers, IP CTS providers typically do not, and there seems to be little point in creating such a relationship for the sole purpose of passing through what likely would be a *de minimis* monthly charge for any particular IP CTS user.

24. To harmonize IP CTS compensation methodology with the IP Relay ruling, the Commission proposes to also treat as allowable the reasonable costs of acquiring NANP telephone numbers for IP CTS users, in those circumstances where such acquisition is necessary to provide the service. To date, such number acquisition has *not* been routinely required. IP CTS is most commonly provided as an adjunct to the consumer's existing telephone service. In such cases, the consumer already has a telephone number, and it is not necessary for the IP CTS provider to assign one. However, for some types of IP CTS, the user initiates an IP CTS call by connecting to the IP CTS provider via the Internet, such as web-based or wireless-based IP CTS, and the provider assigns a new NANP telephone number to the IP CTS user, which is different from the user's existing telephone number and is used only for processing and transmitting IP CTS calls. The Commission seeks comment on this proposal and the costs and benefits of allowing recovery of number acquisition costs.

25. *User access software.* Pursuant to longstanding Commission rulings, twice upheld by the D.C. Circuit, the TRS Fund does not support the provision of the equipment used by a consumer to access TRS. The Commission has previously interpreted this restriction to extend to the "installation of the equipment or any necessary software." However, the Commission has not specifically addressed whether the TRS Fund should support the expenses of providing software that is *not* designed for installation on provider-distributed equipment, but rather is usable on off-the-shelf user devices supplied by third parties. At the time the prohibition on equipment cost recovery was adopted, TRS user software was typically proprietary software run on provider-distributed equipment.

26. Historically, IP CTS has been most commonly accessed via provider-distributed devices. However, a number of providers offer IP CTS via software applications that consumers may access via any web browser or may download to off-the-shelf devices owned by the consumer, such as a computer, tablet, or mobile device.

27. The Commission proposes to allow TRS Fund support for the reasonable cost of developing, maintaining, and providing software and web-based applications that enable users to access IP CTS from off-the-shelf user devices. Where a type of software can be used with a variety of devices purchased from other sources and is necessary for a customer to access and use the service, the Commission believes that such access software, even though it may be installed on or downloaded to a user device, is appropriately classified as associated with the relay *service*, rather than with *equipment*. Further, the Commission believes that its statutory directive to make TRS widely available in the most efficient manner will be advanced if the TRS Fund supports the provision of software that enables access to IP CTS from a wide range of devices. Today, a wide variety of devices are capable of receiving and displaying captions of telephone conversations.

28. In addition, compatibility with off-the-shelf equipment facilitates consumers' ability to choose from a range of service providers based on the quality of their captioning service. The Commission does not propose to include the costs of providing any devices to users, just the costs of developing and providing software that is necessary to provide IP CTS on off-the-shelf devices. The Commission seeks comment on this proposal, its costs and benefits, and the above assumptions. Are there more specific characteristics or limitations that should be identified for determining whether access software costs should be allowable? Commenters are encouraged to provide specific examples of the types of software that might be allowed and the amount of such costs that would be covered under this proposal.

29. As one party has suggested, should the Commission also allow TRS Fund support for the cost of IP CTS access software that is developed and provided for proprietary devices that are designed to be used with a particular provider's service (or with a service that has been licensed to use a particular IP CTS technology)? What would be the costs and benefits of such a change? How would allowing such cost recovery promote the objectives of section 225 of the Act? Would such a change require the Commission to revisit its past determination that its rules should promote the ability of users to access TRS from a variety of commercially available devices? Would allowing such recovery tend to "lock in" consumers, increasing their dependence on a single supplier of IP CTS technology? If the Commission were to allow such cost recovery, how should it distinguish between costs of the software needed to

access IP CTS from proprietary devices, which would be supported by the TRS Fund, and software that is integral to operation of the device, which would continue to be unsupported?

30. The Commission seeks comment on how to ensure the appropriate allocation of software costs between software that a consumer can download to the consumer's off-the-shelf equipment or that is used in association with web-based IP CTS as opposed to software that is used with a provider's or contractor's proprietary equipment. To the extent that such software costs are not directly attributable to one category or the other, the Commission seeks comment on how to allocate such costs between these categories.

31. *Operating Margin.* The Commission proposes that IP CTS compensation for the next cycle should aim to ensure that the total compensation paid to all providers allows an average recovery of an operating margin above allowable expenses that is within the zone of reasonableness (7.75%-12.35%) established in the Commission's *2017 VRS Compensation Order*, published at 82 FR 39973, August 22, 2017, and applied to IP CTS in the *2020 IP CTS Compensation Order*, published at 85 FR 64971, October 14, 2020. The Commission seeks comment on this proposal. Have there been changes in relevant factors that support adjusting the range? Is the current allowable operating margin sufficient to attract capital, new entry, and promote functionally equivalent IP CTS? The Commission notes that a new investor recently purchased a controlling interest in a certified IP CTS provider, CaptionCall. What has been providers' experience since 2020?

32. If the Commission continues to use a cost-based methodology for IP CTS, should it also continue to set the operating margin at 10%, the approximate midpoint of the zone of reasonableness? If the Commission sets different compensation formulas for CA-assisted and ASR-only IP CTS, is there any reason to apply a different operating margin for the ASR-only formula?

33. *Calculation of Cost-Based Compensation Formulas.* The Commission seeks comment on the appropriate levels of per-minute compensation for CA-assisted and ASR-only IP CTS, respectively. Based on the cost and demand data reported by providers in March 2022, the TRS Fund administrator, Rolka Loube, has determined that the average cost (including a 10% operating margin) of CA-assisted IP CTS was \$0.9979 per minute in 2021, and is projected to be \$1.1818 per minute in 2022. The estimated average cost of ASR-only IP CTS was \$0.6977 per minute in 2021 and is projected to be \$0.7286 for

2022. Updated cost data, which will include historical cost and demand for 2021 and 2022 and projected cost and demand for 2023 and 2024, is due to be filed by providers in February 2023. In setting compensation, the Commission intends to take account of such updated cost and demand data, which may result in modification of the above estimates. For example, a recent report by Rolka Loube indicates that demand for IP CTS, which increased significantly in 2020 and 2021, appears to be returning to a level closer to that of 2019. This may reflect a declining impact of the COVID-19 pandemic. The record will remain open for interested parties to comment on such additional data.

34. The Commission recognizes that the use of ASR-only IP CTS has grown while the use of CA-assisted IP CTS has declined. As noted above, by the end of 2021, the ASR-only mode accounted for approximately 23% of monthly IP CTS minutes, and current projections are that the percentage will rise to 40% by late 2023. Given the absence of CAs, it appears that ASR-only service involves a much smaller proportion of variable costs. If ASR-only minutes continue to increase as a share of total IP CTS usage, it appears likely that the per-minute costs of ASR-only will decline, as ASR-only IP CTS seems to involve few costs that grow in direct proportion to usage. The Commission seeks comment on these assumptions. Is the projected growth of ASR-only IP CTS a reasonable expectation, given the efficiency advantages and other benefits of this technology? Is the trend of growth likely to change substantially, and if so, how should that affect the Commission's compensation determinations?

35. *Compensation Period.* The Commission proposes a three-year compensation period. Thus, if the revised compensation formula is effective July 1, 2023, the compensation period will end June 30, 2026. The Commission believes this period is long enough to give providers certainty regarding the applicable compensation levels, provide incentives for providers to become more efficient, and mitigate any risk of creating the "rolling average" problem previously identified by the Commission regarding TRS. On the other hand, the period is short enough to allow timely reassessment of the compensation formulas in response to substantial cost changes and other significant developments.

36. The Commission seeks comment on this proposal. What are the costs and benefits of adopting a compensation period of a longer or shorter duration? In light of the high growth rate of ASR-only usage and the apparently high volume sensitivity of ASR-only per-minute costs, as well as the ongoing changes in ASR technology, should the Commission set a different compensation period for an ASR-only

compensation formula (or for a single IP CTS compensation formula, if the Commission continues using one)?

37. *Inflation and Productivity Adjustments.* The Commission seeks comment to refresh the record on whether a price indexing formula, analogous to price-cap factors, should be applied during a multi-year compensation period, and on the appropriate indices to use to reflect inflation and productivity. If inflation and productivity trends for IP CTS can be predicted with reasonable accuracy, then it appears that the adoption of such factors would give providers greater assurance of cost recovery during a multi-year compensation period, and allow the benefits of any productivity-related cost declines to be shared with TRS Fund contributors.

38. In the *2020 IP CTS Compensation Order*, the Commission deferred consideration of such factors “until we are better able to assess the impact of ASR technology on IP CTS costs.” Have providers adjusted their projected costs to account for anticipated inflation? If the Commission continues to use a weighted average of historical and projected costs in setting a compensation formula, are such adjustments accounted for in the compensation formula? If adopted, how should a price-indexing approach be structured if the Commission were to adopt compensation levels for CA-assisted and ASR-only IP CTS, *e.g.*, to account for any disparities in expected productivity gains between the services?

39. As a reference point for determining an annual inflation adjustment, the Commission proposes to use the Bureau of Labor Statistics’ Employment Cost Index for “professional, scientific, and technical services.” The Commission believes that, because CA-assisted IP CTS is a labor-intensive service, this seasonally adjusted index, which includes translation and interpreting services, will more accurately reflect changes in relevant costs than will a more general index of price changes. The Commission seeks comment on this proposal. Is the use of the index appropriate for ASR-only IP CTS, given that ASR-only IP CTS is not primarily labor based? Would another index be more appropriate for ASR-only IP CTS?

40. How should the Commission ensure productivity is properly accounted for in the adjustment? Does the proposed price index appropriately account for inflation and productivity relevant to IP CTS or would a different price index be more reasonable? Should the Commission adopt a separate X-factor to account for productivity or other factors that may reduce costs relative to inflation? If so, how should the Commission set such an X-factor? For example, could total factor productivity for the professional and

technical services industry as measured by the Bureau of Labor Statistics be used to set the X-factor for CA-assisted IP CTS? Given that ASR-only IP CTS is not primarily labor based, would another index be more appropriate for ASR-only IP CTS?

41. *Alternative Approaches.* The Commission also seeks comment on whether there are other approaches to IP CTS compensation that can successfully align the compensation formula for this service with actual provider costs and enable the Commission to provide IP CTS in the most efficient manner. To the extent that commenters wish to suggest alternative approaches that could simplify or otherwise improve the IP CTS compensation process, the Commission invites the submission of specific proposals, along with an explanation of how each proposal would better align IP CTS compensation with actual provider costs and otherwise advance the objectives of section 225 of the Act.

42. *Technical Amendment Clarifying IP Relay Compensation Rate.* The Commission proposes a technical amendment to § 64.640(d) of the Commission's rules to clarify the inflation adjustment factor for IP Relay compensation. In the *2022 IP Relay Compensation Order*, published at 87 FR 42656, July 18, 2022, the Commission adopted an annual inflation adjustment factor based on the Employment Cost Index compiled by the Bureau of Labor Statistics, U.S. Department of Labor, for total compensation for private industry workers in professional, scientific, and technical services. The Commission directed the TRS Fund administrator to specify in its annual TRS Fund report “the index values for each quarter of the previous calendar year and the last quarter of the year before that.” The Commission also directed the TRS Fund administrator to propose the IP Relay compensation level for the next TRS Fund year by adjusting the compensation level from the previous year by a percentage equal to the percentage change in the index between the fourth quarter of the calendar year ending before the filing of its annual report and the fourth quarter of the preceding calendar year.

43. In short, § 64.640(d) of the Commission's rules codifies the index and time periods to be used to calculate the percentage change in the index to determine the rate of inflation. The Commission proposes to revise the text of the rule to clarify the inflation adjustment factor to eliminate any ambiguity as to how the inflation adjustment factor is calculated. The relevant provision of the rules currently reads:

(d) The inflation adjustment factor for a Fund Year ( $IF_{FY}$ ), to be determined annually on or before June 30, is 1/100 times the difference between the values of the Employment



Cost Index compiled by the Bureau of Labor Statistics, U.S. Department of Labor, for total compensation for private industry workers in professional, scientific, and technical services, for the following periods:

- (1) The fourth quarter of the Calendar Year ending 6 months before the beginning of the Fund Year; and
- (2) The fourth quarter of the preceding Calendar Year.

As amended, this provision would read:

(d) The inflation adjustment factor for a Fund Year ( $IF_{FY}$ ), to be determined annually on or before June 30, is equal to the difference between the Initial Value and the Final Value, as defined herein, divided by the Initial Value. The Initial Value and Final Value, respectively, are the values of the Employment Cost Index compiled by the Bureau of Labor Statistics, U.S. Department of Labor, for total compensation for private industry workers in professional, scientific, and technical services, for the following periods:

- (1) Final Value. The fourth quarter of the Calendar Year ending 6 months before the beginning of the Fund Year; and
- (2) Initial Value. The fourth quarter of the preceding Calendar Year.

44. *Digital Equity and Inclusion.* Finally, the Commission, as part of its continuing effort to advance digital equity for all, including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations and benefits (if any) that may be associated with the proposals and issues discussed in this Notice. The term “equity” is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. Specifically, the Commission seeks comment on how the Commission’s proposals may

promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well as the scope of the Commission's relevant legal authority.

### **Initial Regulatory Flexibility Analysis**

45. As required by the Regulatory Flexibility Act of 1980, as amended, the Commission has prepared the Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the NPRM. Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadline for comments provided in this document.

#### *Need For, and Objectives of, the Proposed Rules*

46. The Commission seeks comment on the adoption of a compensation methodology and compensation levels for TRS Fund support of providers of IP CTS. With the introduction and growing demand of ASR-only IP CTS, the Commission seeks to build a record on the cost and service quality differences between ASR-only IP CTS and CA-assisted IP CTS. In doing so, the Commission proposes to move away from its current practice of determining a compensation level for both ASR-only IP CTS and CA-assisted IP CTS on the average weighted cost of providing CA-assisted IP CTS. To develop an alternative, the Commission seeks comment on the allocation of costs between ASR-only and CA-assisted IP CTS, allowable costs, operating margins, cost reporting, available demand data, and the service quality of ASR-only and CA-assisted IP CTS.

47. The Commission seeks comment on the appropriate duration of the compensation period and the use of a price indexing formula to adjust compensation for inflation and productivity. The Commission also seeks comment on alternatives to using a cost-based compensation methodology and alternatives to averaging costs to determine whether such alternatives could better achieve the Commission's objectives.

48. The Commission also seeks comment on a technical amendment to the Commission's rules on IP Relay compensation to clarify the inflation adjustment factor that is applied annually during the compensation period.

49. The Commission takes these steps to ensure the provision of IP CTS in a functionally equivalent manner to persons who are deaf, hard of hearing, deafblind or have speech disabilities. In doing so, the Commission balances several different factors including regulating the recovery of costs caused by the

service, encouraging the use of existing technology and not discouraging or impairing the development of improved technology, and ensuring IP CTS is “available, to the extent possible and in the most efficient manner.”

#### *Legal Basis*

50. The authority for this proposed rulemaking is contained in sections 1, 2, and 225 of the Act, as amended, 47 U.S.C. 151, 152, 225.

#### *Small Entities Impacted*

51. The proposals in this document will affect the obligations of IP CTS providers. These services can be included within the broad economic category of All Other Telecommunications.

#### *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements*

52. The proposed compensation methodology will not create new reporting, recordkeeping, or other compliance requirements.

#### *Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered*

53. Throughout this document, the Commission is taking steps to minimize the impact on small entities by seeking comment on reforms to the IP CTS compensation methodology that would ensure that providers of IP CTS are fairly compensated for the provision of IP CTS (both ASR-only IP CTS and CA-assisted IP CTS) including considering significant alternatives by identifying and seeking comment on multiple methodologies for compensation; and considering various options to determine the best compensation methodology for ensuring functionally equivalent service and balance several different factors in carrying out the objective of section 225 of the Act over the long term in accordance with the Commission’s statutory obligations. The Commission seeks comment on the effect these proposals will have on all entities that have the potential to provide IP CTS, including small entities.

54. The Commission seeks comment from all interested parties. Small entities are encouraged to bring to the Commission’s attention any specific concerns they may have with the proposals outlined in this document. The Commission expects to consider the economic impact on small entities, as identified in comments filed in response to this document, in reaching its final conclusions and acting in this proceeding.

#### *Federal Rules Which Duplicate, Overlap, or Conflict With, the Commission’s Proposals*

55. None.

#### **Initial Paperwork Reduction Act of 1995 Analysis**

The Commission seeks comment on proposed rule amendments that may result in modified information collection requirements. If the Commission adopts any modified information collection requirements, the Commission will publish another notice in the *Federal Register* inviting the public to comment on the requirements, as required by the Paperwork Reduction Act, Pub. L. 104-13; 44 U.S.C. 3501-3520. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, the Commission seeks comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees. Pub. L. 107-198, 44 U.S.C. 3506(c)(4).

#### **List of Subjects in 47 CFR Part 64**

Individuals with disabilities, Telecommunications, Telecommunications relay services.

Federal Communications Commission.

**Katura Jackson,**  
*Federal Register Liaison Officer.*

## **Proposed Regulations**

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend Title 47 of the Code of Federal Regulations as follows:

### **Part 64 - MISCELLANEOUS RULES RELATING TO COMMON CARRIERS**

1. The authority citation for part 64 continues to read as follows:

**Authority:** 47 U.S.C. 151, 152, 154, 201, 202, 217, 218, 220, 222, 225, 226, 227, 227b, 228, 251(a), 251(e), 254(k), 255, 262, 276, 403(b)(2)(B), (c), 616, 617, 620, 1401-1473, unless otherwise noted; Pub. L. 115-141, Div. P, sec. 503, 132 Stat. 348, 1091.

2. The authority citation for subpart F continues to read as follows:

**Authority:** 47 U.S.C. 151-154; 225, 255, 303(r), 616, and 620.

3. Amend § 64.640 by revising paragraph (d) to read as follows:

#### **§ 64.640 Compensation for IP Relay.**

\* \* \* \* \*

(d) The inflation adjustment factor for a Fund Year (IF<sub>FY</sub>), to be determined annually on or before June 30, is equal to the difference between the Initial Value and the Final Value, as defined herein, divided by the Initial Value. The Initial Value and Final Value, respectively, are the values of the Employment Cost Index compiled by the Bureau of Labor Statistics, U.S. Department of Labor, for total compensation for private industry workers in professional, scientific, and technical services, for the following periods:

(1) Final Value. The fourth quarter of the Calendar Year ending 6 months before the beginning of the Fund Year; and

(2) Initial Value. The fourth quarter of the preceding Calendar Year.

\* \* \* \* \*

4. Add § 64.641 to subpart F to read as follows:

#### **§ 64.641 Compensation for Internet Protocol Captioned Telephone Service using only automatic speech recognition technology (ASR-Only IP CTS).**

(a) For the period from \_\_\_\_\_, through \_\_\_\_\_, TRS Fund compensation for the provision of ASR-Only Internet Protocol Captioned Telephone Service shall be as described in this section.

(b) For Fund Year \_\_\_\_\_, comprising the period from \_\_\_\_\_, \_\_\_\_\_, the Compensation Level for ASR-Only Internet Protocol Captioned Telephone Service shall be \$X.XXXX per minute.

(c) For each succeeding Fund Year through \_\_\_\_\_, the per-minute Compensation Level ( $L_{FY}$ ) shall be determined in accordance with the following equation:

$$L_{FY} = L_{FY-1} * (1 + IF_{FY} - PF_{FY})$$

where  $IF_{FY}$  is the Inflation Adjustment Factor for that Fund Year, determined in accordance with paragraph (d) of this section and  $PF_{FY}$  is the Productivity Adjustment Factor for that Fund Year, determined in accordance with paragraph (e).

(d) The inflation adjustment factor for a Fund Year ( $IF_{FY}$ ), to be determined annually on or before June 30, is equal to the difference between the Initial Value and the Final Value, as defined herein, divided by the Initial Value. The Initial Value and Final Value, respectively, are the values of the Employment Cost Index compiled by the Bureau of Labor Statistics, U.S. Department of Labor, for total compensation for private industry workers in professional, scientific, and technical services, for the following periods:

(1) Final Value. The fourth quarter of the Calendar Year ending 6 months before the beginning of the Fund Year; and

(2) Initial Value. The fourth quarter of the preceding Calendar Year.

(e) The productivity adjustment factor for a Fund Year ( $PF_{FY}$ ), to be determined annually on or before June 30, is [to be added].

(f) In addition to  $L_{FY}$ , an ASR-only Internet Protocol Captioned Telephone Service provider shall be paid a per-minute exogenous cost adjustment if claims for exogenous cost recovery are submitted by the provider and approved by the Commission on or before June 30. Such exogenous cost adjustment shall equal the amount of such approved claims divided by the provider's projected minutes for the Fund Year.

(g) An exogenous cost adjustment shall be paid if an Internet Protocol Captioned Telephone Service provider incurs well-documented costs that:

(1) belong to a category of costs that the Commission has deemed allowable;

(2) result from new TRS requirements or other causes beyond the provider's control;

(3) are new costs that were not factored into the applicable compensation formula; and

(4) if unrecovered, would cause a provider's current allowable-expenses-plus-operating margin to exceed its revenues.

5. Add § 64.642 to subpart F to read as follows:

**§ 64.642 Compensation for Internet Protocol Captioned Telephone Service provided with communications assistants (CA-Assisted IP CTS).**

(a) For the period from \_\_\_\_\_, through \_\_\_\_\_, TRS Fund compensation for the provision of CA-Assisted Internet Protocol Captioned Telephone Service shall be as described in this section.

(b) For Fund Year \_\_\_\_\_, comprising the period from \_\_\_\_\_, through \_\_\_\_\_, the Compensation Level for CA-Assisted Internet Protocol Captioned Telephone Service shall be \$X.XXXX per minute.

(c) For each succeeding Fund Year through \_\_\_\_\_, the per-minute Compensation Level ( $L_{FY}$ ) shall be determined in accordance with the following equation:

$$L_{FY} = L_{FY-1} * (1 + IF_{FY} - PF_{FY})$$

where  $IF_{FY}$  is the Inflation Adjustment Factor for that Fund Year, determined in accordance with paragraph (d) of this section and  $PF_{FY}$  is the Productivity Adjustment Factor for that Fund Year, determined in accordance with paragraph (e).

(d) The inflation adjustment factor for a Fund Year ( $IF_{FY}$ ), to be determined annually on or before June 30, is equal to the difference between the Initial Value and the Final Value, as defined herein, divided by the Initial Value. The Initial Value and Final Value, respectively, are the values of the Employment Cost Index compiled by the Bureau of Labor Statistics, U.S. Department of Labor, for total compensation for private industry workers in professional, scientific, and technical services, for the following periods:

(1) Final Value. The fourth quarter of the Calendar Year ending 6 months before the beginning of the Fund Year; and

(2) Initial Value. The fourth quarter of the preceding Calendar Year.

(e) The productivity adjustment factor for a Fund Year ( $PF_{FY}$ ), to be determined annually on or before June 30, is [to be added].

(f) In addition to  $L_{FY}$ , a CA-assisted Internet Protocol Captioned Telephone Service provider shall be paid a per-minute exogenous cost adjustment if claims for exogenous cost recovery are submitted by the provider and approved by the Commission on or before June 30. Such exogenous cost adjustment shall equal the amount of such approved claims divided by the provider's projected minutes for the Fund Year.

(g) An exogenous cost adjustment shall be paid if a CA-assisted Internet Protocol Captioned Telephone

Service provider incurs well-documented costs that:

- (1) belong to a category of costs that the Commission has deemed allowable;
- (2) result from new TRS requirements or other causes beyond the provider's control;
- (3) are new costs that were not factored into the applicable compensation formula; and
- (4) if unrecovered, would cause a provider's current allowable-expenses-plus-operating margin to exceed its revenues.

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